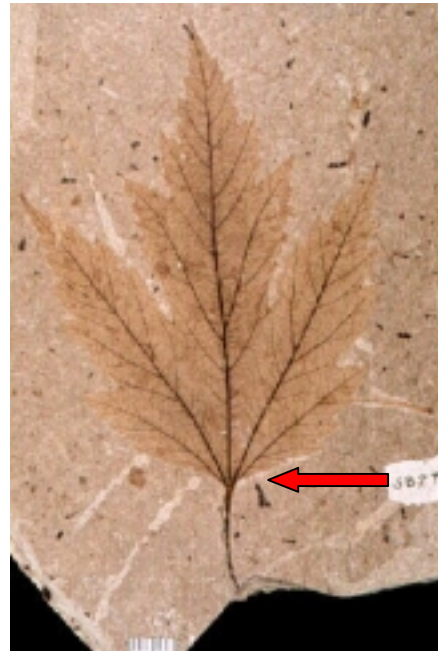
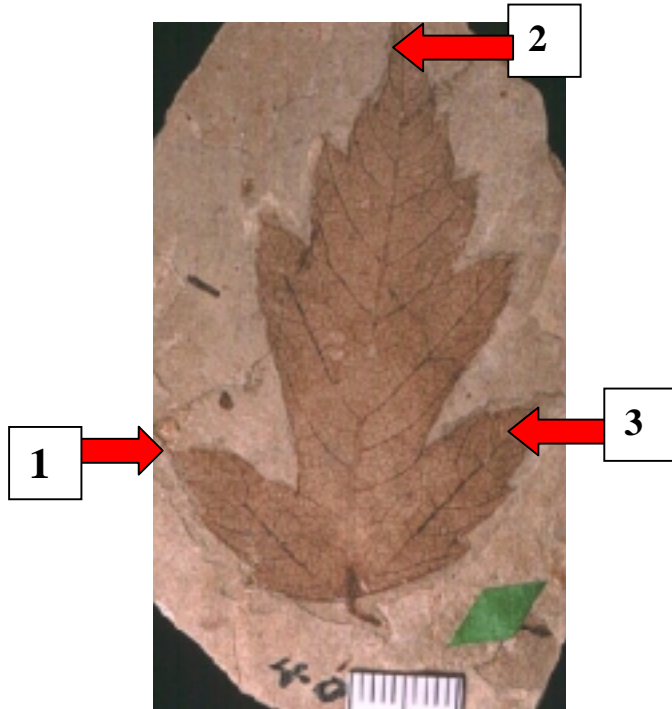
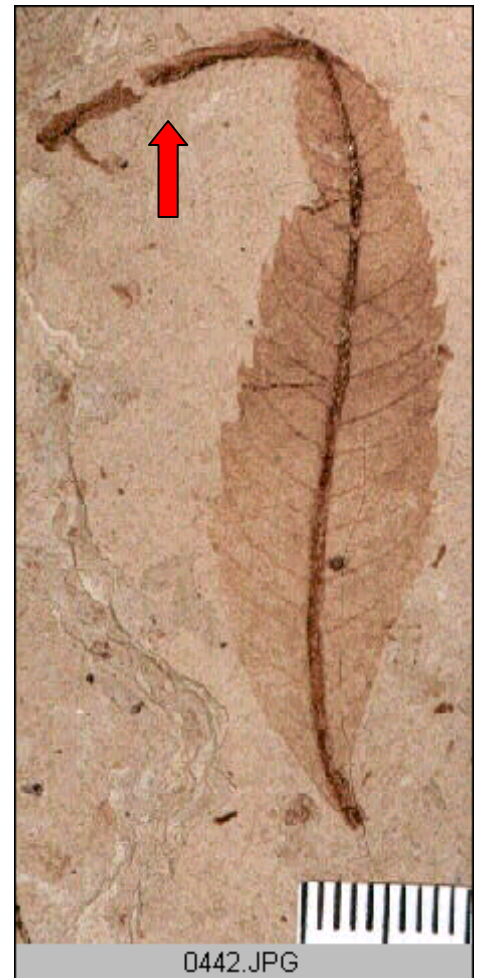


Acer sp. (Maple)

MacGinitie pg. 139; pl. 58, 57

Leaves **palmately three-parted**; leaves deeply serrate; midrib strong and tapering toward the apex of each lobe; **midribs radiate from a central origin**; fruits look like modern maple fruits (**propeller- or helicopter-like**): L = 2-11cm, W = 2.2-8cm



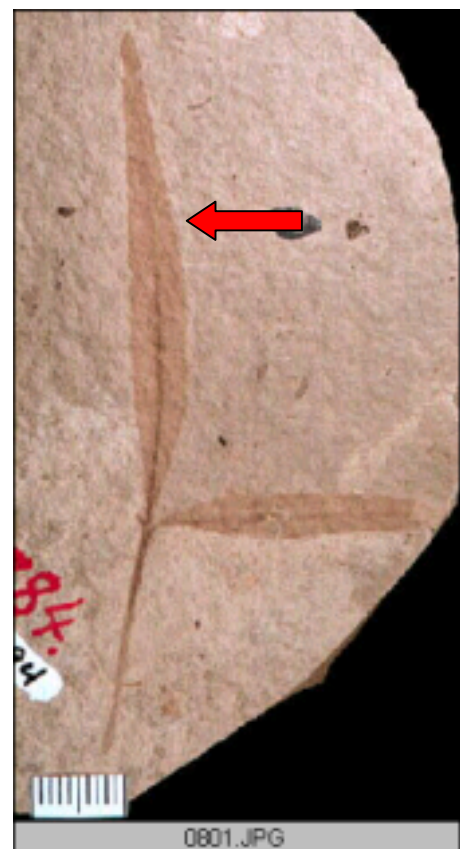
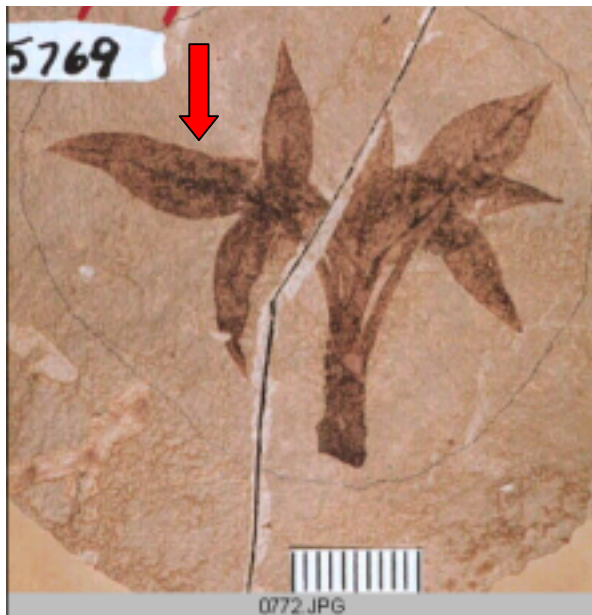


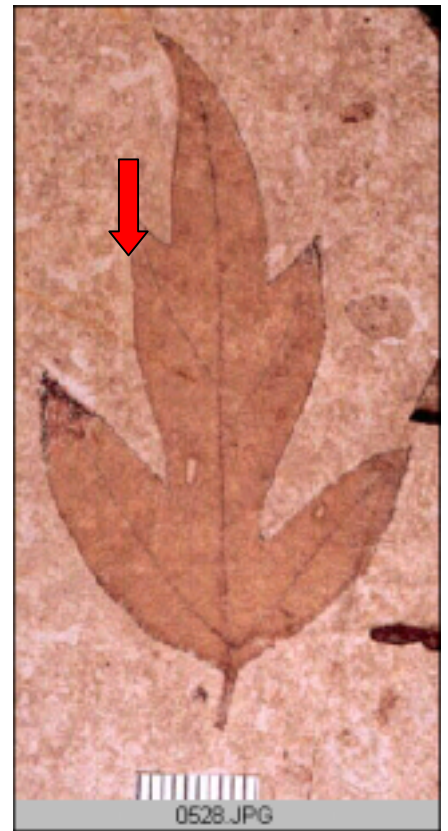
Bursera sp.

MacGinitie pg. 130; pl. 61, 65, 73

This genus is in the 'aromatic tree' family.

Leaves in threes (trifoliate); leaflets long and slender to long and rounded; finely toothed margin; apex extended: L = 2-10cm, W = .6-1.8cm



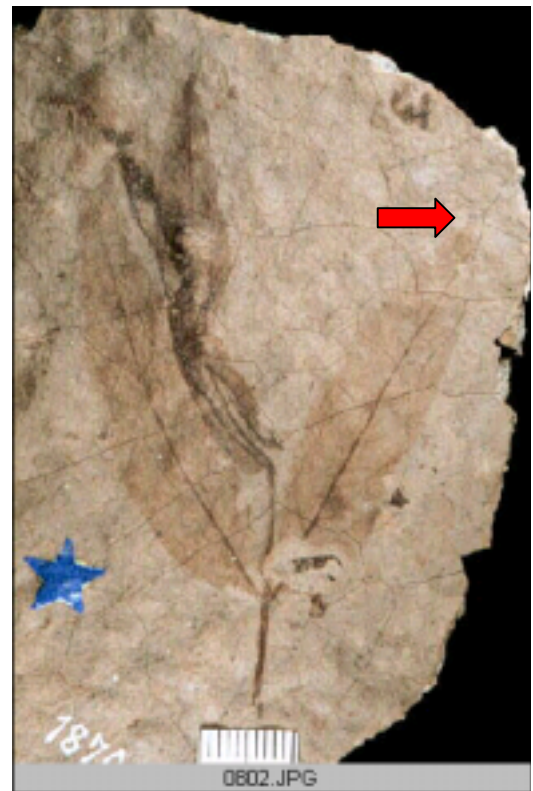


Cardiospermum sp.

MacGinitie pg. 143; pl. 62

This genus is in the Soapberry family (Sapindaceae). Compound leaves; **leaflets are irregularly lobed**; number of lobes is usually odd in number; **strong secondary veins run into the tips of the lobes**, the weaker secondaries run into the sinuses: L = 3-7cm; W = 2.5-4cm (leaflets)





Carya sp. (Hickory)

MacGinitie pg. 96; pl. 24, 27, 28, 48, 59

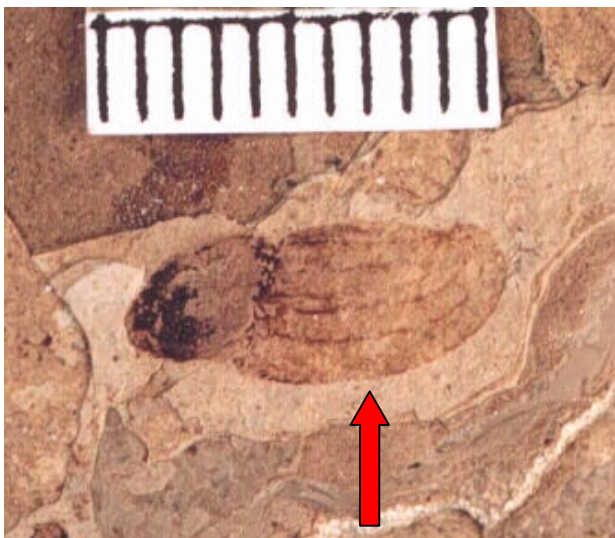
Leaves are compound w/ 9-11 opposing leaflets; leaflets are rounded and oval shaped; **apex is acute**; **margin is strongly serrate** or doubly serrate; **secondary veins branch before reaching the margin**, terminal leaflet is longer than lateral leaflets: L = 2-11cm



Cedrelospermum sp.

Manchester 1989

This genus is in the Elm family (Ulmaceae). A compound leaf that has alternating leaflets on the branch; **The leaflets are lanceolate** to elliptical in shape; the leaflets are nearly symmetrical; **the margins are serrate with prominent, blunt teeth**; the secondary veins extend into the apices of the teeth; **the fruits are winged and look much like those of modern maple trees.**





Cercocarpus sp.

MacGinitie pg. 115; pl. 40, 47, 49

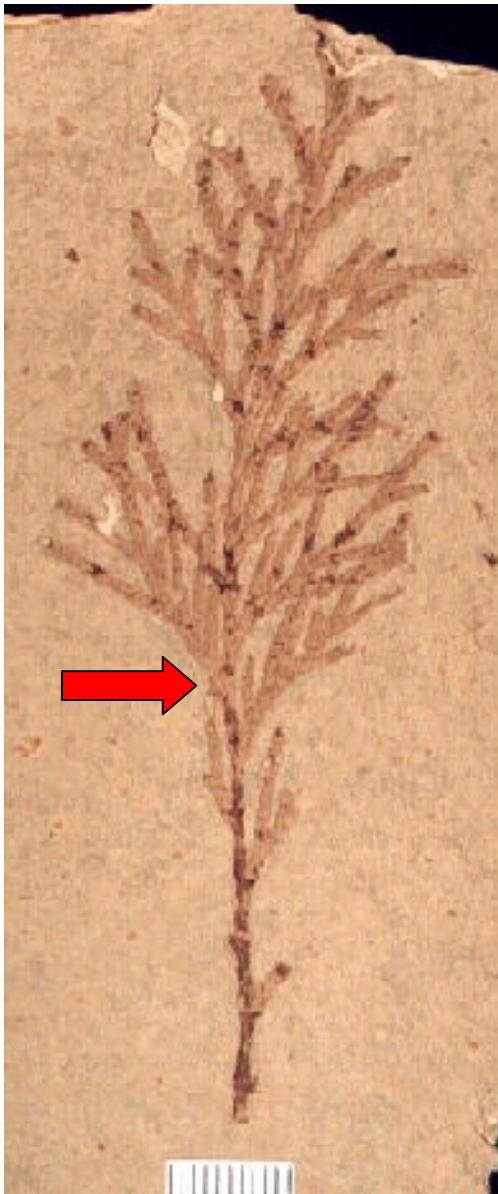
This genus is in the Rose family (Rosaceae). Leaves are long, narrow and slightly rounded; the apex is acute to rounded; **the margin is strongly serrate with the teeth pointing towards the apex; secondaries terminate in the apices of the teeth**: L = 3-10cm, W = 0.5-2cm



Chamaecyparis sp. (Cedar family)

MacGinitie pg. 89; pl. 21

Coniferous branchlets; slightly flattened; the branchlets are covered in leaves that are chain-link looking, a single segment of these leaves (a whorl) looks like the shape of a tulip; the cones are small 9-12mm, they are commonly found disarticulated in a clover shape (bottom picture).





***Crataegus sp.* (Hawthorne)**

MacGinitie pg. 117-118; pl. 40, 41, 42

Leaves can be long and narrow to ovate; lobing always less distinct towards the apex; in some species, the secondaries extend directly into the apices of the lobes; hawthornes are thorny plants and their thorns are commonly found in the fossil record; dimensions vary widely with different species.

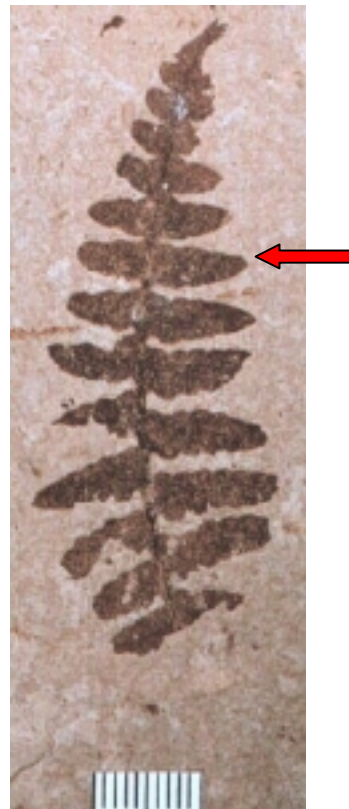




Dryopteris sp.
(Fern)

MacGinitie pg. 81;
pl. 15

Leaves, long-slender,
alternate; apex slightly
rounded. Fronds taper
towards apex.





Fagopsis longifolia

Macginitie pg. 98; pl. 14, 33, 73

Fagopsis is an extinct member of the Beech family. The leaf shape is ovate; the margin is strongly dentate; the apex is acute, and the base is acute, slightly rounded and inequilateral; the fruits are usually found in sections like citrus fruit (disarticulated). This species is confined only to the Florissant Formation and is very common in the fossil record: L = 5-7 cm, W = 2.5-3 cm (leaves)





Paracarpinus sp.
(Beech, Blue Beech)
Manchester (MacGinitie)
 pg. 97; pl. 26

Leaves are long and oval shaped;
 the apex pinches out to a sharp tip
 (acuminate); margin is doubly
 toothed (serrate); the teeth are like
 spines; secondaries extend into the
 teeth at the margin:
 L = 2-9cm; W = 1-2cm



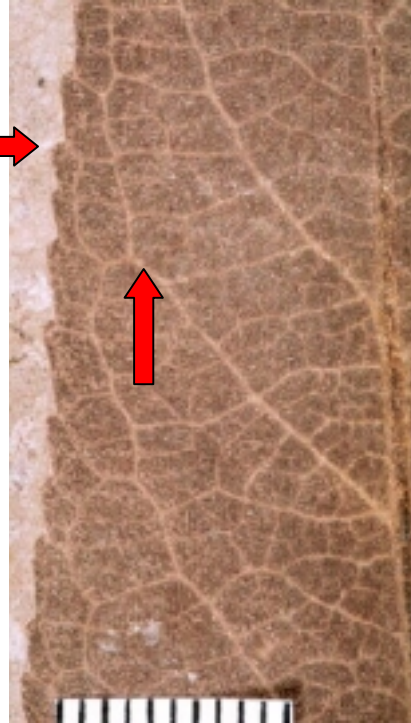
Pinus sp. (Pine)

MacGinitie pg. 84; pl. 18, 19, 20

Needles long and spike-like, usually in bundles of three; cones ovate.

Cone: L = 11cm; W = 6cm; Needles: L = 17.5cm





Populus sp.

(Poplar)

MacGinitie pg. 93; pl.
22, 23

Leaves long to short and ovate; the margin is regularly toothed; **the teeth are rounded and point towards the apex;** **the secondaries do not extend to the outer margin;** secondaries curve upwards towards the apex as well:
L = 5-20cm, W = 2-10cm





Quercus sp.(Oak)

NOTE: There are many species of *Quercus* at FLFO, these are the most common ones.

MacGinitie pg. 100-102;
pl. 15, 22, 29, 30, 43

Some leaves are long and narrow, others are more stout; they can either be strongly lobed or serrate; teeth are spiny and point towards the apex, they decrease in consistency as they approach the base; dimensions vary widely with different species.



Rhus sp.

NOTE: There are many of species of *Rhus* at FLFO, these are the most common ones. *Rhus* is an anacard. Anacards vary widely within their family. A common one is poison ivy.

MacGinitie pg.135-136; pl. 52, 53, 55

Leaves are compound; leaflets are arranged opposite, leaflets are ovate to long and narrow; apex is pinched to a tip (acuminate); base is unequilateral, margin is irregularly serrate; dimensions of leaflets and leaves vary widely with different species.





0307.JPG

Rosa sp.

(Rose family)

MacGinitie pg. 121; pl. 41, 42,
49

Compound leaves; leaflets arranged opposite one another; leaflets are ovate, terminal leaflet is more narrow than lateral leaflets; margin is irregularly serrate; apex of leaflets are slightly acute: L = 3.5-6cm, W = 2.5-4cm (leaflets)



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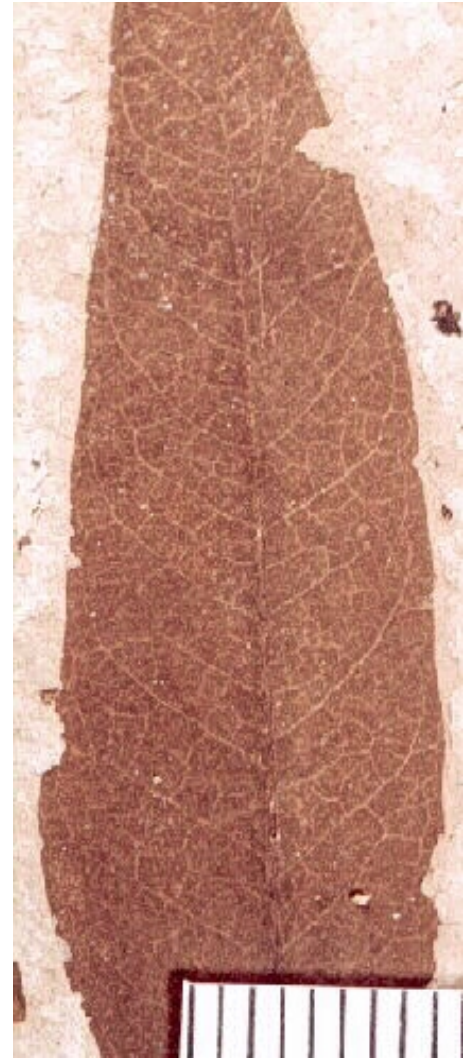
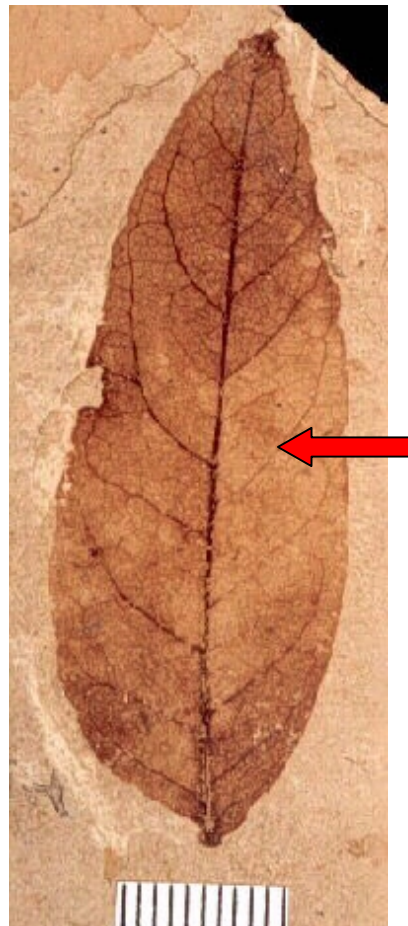
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Salix sp. (Willow family)

MacGinitie pg. 94-95; pl. 20, 23, 24, 25

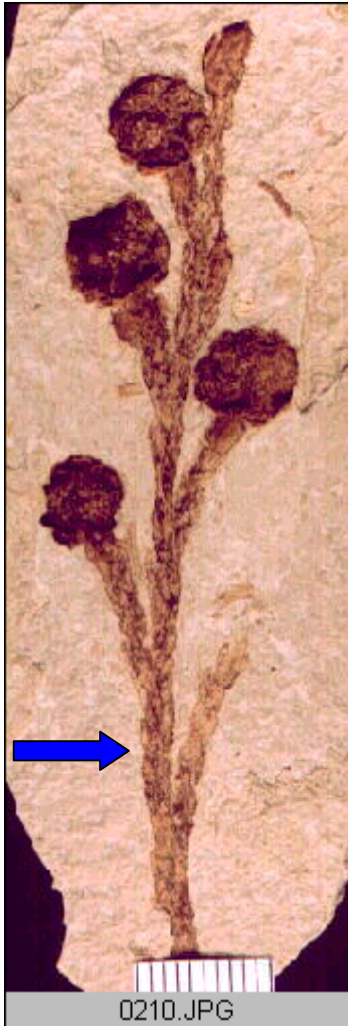
Leaves long and narrow, some are slightly ovate; margin is finely serrate; **apex is gradually acuminate (pinching off to a spine)**; secondary veins curve upward toward apex along the margin; base can be acute or rounded: L = 4.5-12cm, W = 1.4-3cm (varies with different species)



Sapindus sp. (Soapberry Family)

MacGinitie pg. 146; pl. 45, 53, 60, 61

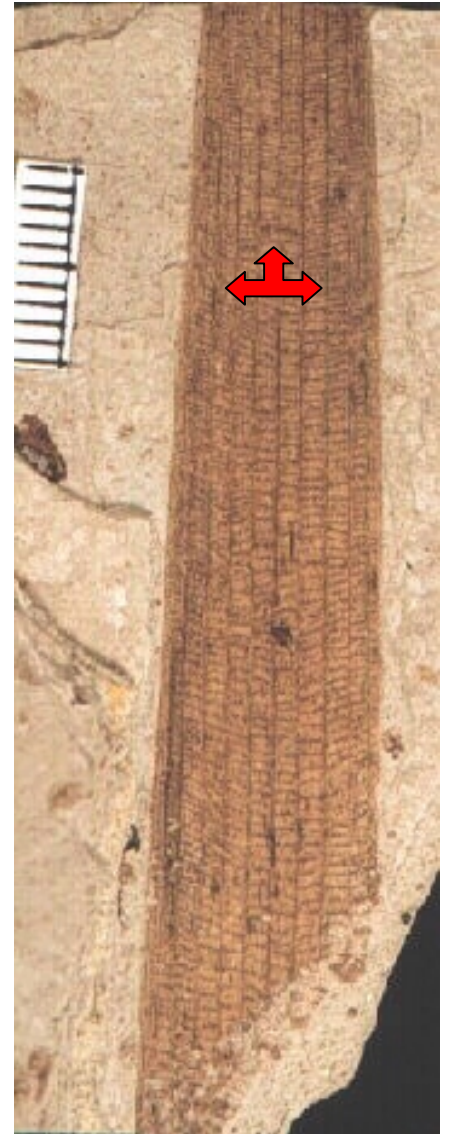
Compound leaves are **opposite**; leaflets are inequilateral; long and narrow (lanceolate) to ovate; apex is acuminate; **secondaries curve upwards towards apex along the margin**: L = 15cm, W = 9cm



Sequoia sp.

MacGinitie pg. 85; pl. 16, 17

There are two forms of leaves, the longer of the two is referred to as “spreading and two-ranked” (approx. 11mm in length), the shorter version is called “appressed”. The cones are small and round (approx. 1cm in length).



Typha sp.
(Cattail)

MacGinitie pg. 91; pl. 69

Monocot; has parallel venation; **many straight linear veins, with interspersed weaker cross veins (perpendicular to the linear veins)**: W = 2-3.4cm, lengths vary because they are usually found in fragments; fairly common throughout the shales.



Ulmus sp.

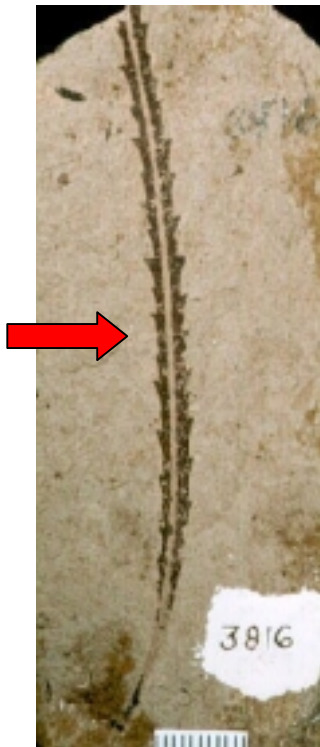
(Elm family)

MacGinitie pg. 105-106;
pl. 21, 32, 75

Leaves are long and narrow to ovate;
they are asymmetrical; **the base is**
inequilateral; the apex is acuminate;
margin is strongly doubly serrate;
secondaries extend into the apices of
the teeth:

L = 3-6cm, W = 1.6-2.8cm
(some get much larger)





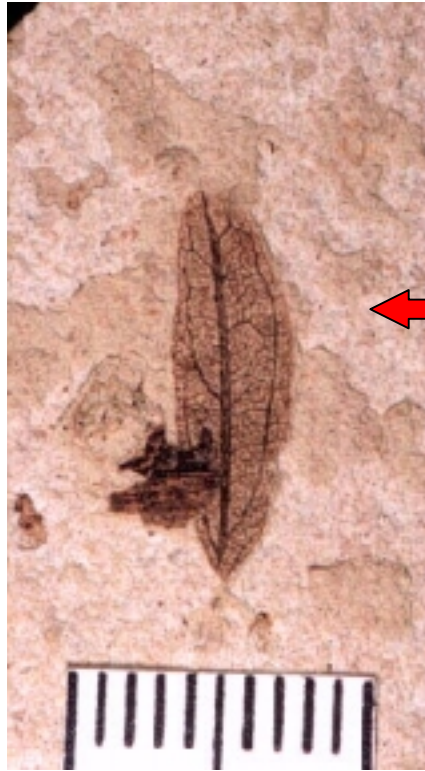
Vauquelinia sp.
(in the Rose
Family)

MacGinitie pg. 121; pl.
40, 42

Leaves long, slender, **apex is
sometimes rounded and blunt,**
margin usually moderately to
strongly dentate:

L = 1-5.5cm, W = .6-1.1cm





Zizyphus sp.

MacGinitie pg. 149; pl.
64, 72

This genus includes dates; plants usually have thorns; leaves ovate-lanceolate, midrib is prominent, secondaries curve upward towards the apex:

L = 2-5cm; W = .5-2cm

